



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/520,260	02/24/2005	Klaus L Svendsen	66722-068-7	2863
25269	7590	02/09/2006	EXAMINER	
DYKEMA GOSSETT PLLC FRANKLIN SQUARE, THIRD FLOOR WEST 1300 I STREET, NW WASHINGTON, DC 20005			SWERDLOW, DANIEL	
			ART UNIT	PAPER NUMBER
			2646	

DATE MAILED: 02/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/520,260	SVENSEN ET AL.
	Examiner	Art Unit
	Daniel Swerdlow	2646

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 24 October 2005.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-5 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-5 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ . |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____ . |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. **Claims 1 through 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gath (US Patent 3,239,093) in view of Feldmann et al. (Automated Assembly of New 3D Molded Interconnection Devices).**
3. Regarding Claim 1, Gath discloses a hearing aid (Fig. 4) comprising a circuit module with a plurality of electronic components (column 3, lines 37-43). Therefore, Gath anticipates all elements of Claim 1 except the circuit module being a structural part of the hearing aid with interconnecting leads formed on its surface. Feldmann discloses molded circuit interconnect technology in which electronic components are mounted directly on a product casing (i.e., structural part) and interconnected with leads bonded to the casing surface (Fig. 4; abstract). Feldmann further discloses that such an arrangement has the advantages of miniaturization, automation and environmental compatibility (Fig. 4). It would have been obvious to one skilled in the art at the time of the invention to apply molded interconnection as taught by Feldmann to the hearing aid taught by Gath for the purpose of realizing the aforesaid advantages.
4. Regarding Claim 2, Gath further discloses a behind the ear hearing aid with a casing that encloses the components and the leads thereof (Figs. 1-4; column 1, lines 60-64).
5. Regarding Claim 3, Gath further discloses the circuit module disposed as an internal wall dividing the case into two compartments (Fig. 4).

6. Regarding Claim 4, Feldmann further discloses double-sided interconnection (i.e., a lead penetrating through a thickness of a wall part) (Fig. 10).

7. **Claims 1 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hickox (US Patent 3,598,928) in view of Feldmann.**

8. Regarding Claim 1, Hickox discloses a hearing aid (Fig. 2) comprising a circuit module 13 with a plurality of electronic components and printed conductors attached to an outer cover mounting plate 12 (column 3, lines 35-41). Therefore, Hickox anticipates all elements of Claim 1 except the circuit module being a structural part of the hearing aid. Feldmann discloses molded circuit interconnect technology in which electronic components are mounted directly on a product casing (i.e., structural part) and interconnected with leads bonded to the casing surface (Fig. 4; abstract). Feldmann further discloses that such an arrangement has the advantages of miniaturization, automation and environmental compatibility (Fig. 4). It would have been obvious to one skilled in the art at the time of the invention to apply molded interconnection as taught by Feldmann to the hearing aid taught by Hickox for the purpose of realizing the aforesaid advantages.

9. Regarding Claim 5, Hickox further discloses an in-the-ear hearing aid (Fig. 2; column 1, lines 6-9) with a casing 11 that corresponds to the shell claimed and a circuit module 13 and outer cover mounting plate 12 arrangement that corresponds to the faceplate claimed with printed conductors (i.e., leads) on the inside of the outer cover mounting plate 12.

Response to Arguments

10. Applicant's arguments with respect to all claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel Swerdlow whose telephone number is 571-272-7531. The examiner can normally be reached on Monday through Friday between 7:30 AM and 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh H. Tran can be reached on 571-272-7564. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



ds

24 January 2006



SINH TRAN
SUPERVISORY PATENT EXAMINER